# MANUFACTURING EXTENSION PARTNERSHIP Success Stories from the Field

# **Diamond Mowers, Inc.**

**South Dakota Manufacturing Extension Partnership** 

**Cutting-edge Improvements Deliver Increased Profits, Greater Efficiencies to Diamond Mower Production** 

### **Client Profile:**

Diamond Mowers manufactures hydraulically driven highway mowers that cut grass, trees and brush. The business is four years old, but its owners, the Doyle family, have sold hydraulically driven roadside mowers since 1969. Diamond Mowers is headquartered in Sioux Falls, South Dakota, where the mowers are also manufactured. Its customers are almost all government agencies, especially municipalities. The mowers are marketed and sold across the country through dealers. The full line of mowing equipment includes rotary, flail and boom mowers, which fit all makes of tractors, loaders and skid loaders. The specialty 50-inch boom rotary mower will cut trees and brush up to 10 inches in diameter. In addition to mowers, the company also manufactures an All-American 'Quick-a-tach' Roller, which installs in under 90 seconds and has a 75-inch compaction width specially designed for working road shoulders. Diamond Mowers employs 37 people. Its sales offices are located in Tennessee and Minnesota.

### Situation:

Diamond Mowers is expecting rapid growth and wanted to plan for it. It recognized that its product wasn't getting through the plant as it should and that it had too much inventory. After attending a workshop sponsored by the North Dakota Manufacturing Extension Partnership (ND MEP), a NIST MEP network affiliate, Diamond Mowers President Bill Doyle contacted ND MEP to study the plant design, inventory concerns and to implement strategic planning.

### Solution:

ND MEP staff spent close to 30 working days at the plant, reviewing with Diamond Mowers employees the plant's design, space layout and organization. They also studied how to eliminate inventory outages and shortages, provided assistance in specific personnel issues and implemented strategic planning. The various assembly stations were designed to accommodate the tools and materials. All inventory was brought into the plant, allowing only a finite space for each part.

#### Results:

- \* Increased profitability by 30 percent.
- \* Doubled output per employee.
- \* Decreased inventory shortages by more than 70 percent, with additional decreases of 30 percent expected over next six months.
- \* Reduced parts retrieval time and frequency.
- \* Improved visual management of the inventory.
- \* Anticipated rapid growth.



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\* Hired production manager who has Lean experience.

## **Testimonial:**

"Some manufacturers think their companies are doing better than they think or they are too stubborn to find out how they can improve. We weren't afraid to ask ND MEP for help. It's such a great feeling to have addressed our problems and now see the positive results in speed and profitability."

Bill Doyle, President of Diamond Mowers

